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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,692	02/22/2002	Michael K. Zyskowski	MICR0261	5312

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MICROSOFT CORPORATION  
LAW OFFICES OF RONALD M. ANDERSON  
600 108TH AVENUE N.E., SUITE 507  
BELLEVUE, WA 98004

EXAMINER

ORTIZ RODRIGUEZ, CARLOS R

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/082,692

**Applicant(s)**

ZYSKOWSKI, MICHAEL K.

**Examiner**

Carlos Ortiz-Rodriguez

**Art Unit**

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/23/02 & 4/09/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-34 rejected under 35 U.S.C. 102(b) as being anticipated by Reed et al., “Improving the Aircraft Design Process Using Web-Based Modeling and Simulation”, ACM Transactions on Modeling and Computer Simulation, Vol. 10, No. 1, January 2000, Pages 58-83.

Regarding claims 1, 10, 11, 12, 18, 19, 28 and 29, Reed et al. disclose a method for enabling a user to create or modify a design for an aircraft and evaluate flight characteristics of the design, comprising the steps of: (a) enabling the user to input a plurality of parameters that define the design of the aircraft (Page 60 L24-30); (b) processing the plurality of parameters to generate a plurality of aerodynamic coefficients that define a flight model for the design of the aircraft (Page 60 L32-37); (c) producing a plurality of flight model data files that include: (i) the aerodynamic coefficients generated; and (ii) selected parameters input by the user (Page 65 L35-41); and (d) enabling the user to evaluate the flight characteristics of the design by simulated flying of the aircraft within a flight simulation program using the plurality of flight model data files (Page 66 L1-5 and Page 78 L22-26).

Regarding claims 2 and 20, Reed et al. disclose wherein the plurality of parameters include geometric properties of the aircraft, and wherein the step of processing comprises the

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step of using the geometric properties to determine a force developed by each of a plurality of component surfaces of the aircraft (Page 65 L35-41 and Page 66 L3-5).

Regarding claims 3, 4, 15, 21, 22 and 32, Reed et al. disclose wherein the step of enabling the user to input the plurality of parameters comprises the steps of: (a) associating allowed limits for at least some of the plurality of parameters; and (b) providing an indication if the user enters a parameter that is outside the allowed limits associated with said parameter (Page 68 Section 4.2.1).

Regarding claims 5, 14, 23 and 31, Reed et al. disclose the steps of: (a) enabling the user to modify at least one of a plurality of parameters of an existing design for an aircraft; and (b) repeating steps (b) through (d) in Claim 1 in regard to the design of the existing aircraft as thus modified by the user, to enable the user to evaluate flight characteristics of the design of the existing aircraft as thus modified by the user (Page 78 L22-26).

Regarding claims 6, 16, 24 and 33, Reed et al. disclose the step of modifying the flight model data files that were generated, based upon empirical data determined from use of the flight simulation program, to increase an accuracy of the flight characteristics experienced when simulating flying of the aircraft in the flight simulation program (Page 68 Section 4.2.1).

Regarding claims 7-9, 13, 25-27, and 30, Reed et al. disclose the step of producing the flight model data files includes the step of producing one flight model data file that includes

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binary data defining the aerodynamic coefficients for a plurality of component surfaces of the aircraft (Page 73 L25-46).

Regarding claims 17 and 34 Reed et al. disclose wherein an aerodynamic coefficient for aircraft lift curve slope is generated before an aerodynamic coefficient for static longitudinal stability (Page 61 L3-13).

***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to integrated aircraft flight dynamics prediction and simulation:

- a. U.S. Pat. No. 5,378,155 to Eldridge, which discloses combat training system and method including jamming.
- b. U.S. Pat. No. 6,246,929 to Kaloust, which discloses enhanced stall and recovery control system.

The following publications are cited to further show the state of the art with respect to integrated aircraft flight dynamics prediction and simulation:

- c. U.S. Pub. No. 2004/0189671 to Masne, which discloses method and system for transmission of data for two-or-three-dimensional geometrical entities.

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- d. Haines, "The contribution of aerodynamics to advances in transport aircraft design", Phys. Technol., Vol. 13, 1982.
- e. Cooke et al., "NPSNET: Flight simulation dynamic modeling using quaternions", In Presence, Vol. 1, No., pp. 404-420.
- f. Hannemann et al., "Visualization of High Speed Aerodynamic Configuration Design", Proceedings of the 6<sup>th</sup> IEEE Visualization Conference, 1995.
- g. Trapp et al., "Data Level Comparative Visualization in Aircraft Design", IEEE, 1996.
- h. Lu et al., "Manufacturing process modeling of Boeing 747 moving line concepts", Proceedings of the 2002 Winter Simulation Conference.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Ortiz-Rodriguez whose telephone number is (571) 272-3747. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The central official fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the general information number at 800-786-9199.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carlos Ortiz-Rodriguez  
Patent Examiner  
Art Unit 2125



cror

July 25, 2005

**LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100**